

UNCLASSIFIED

Exhibit R-2, FY 2003 PB RDT&E,N Budget Item Justification

DATE: February 2002

BUDGET ACTIVITY: 7 PROGRAM ELEMENT: 0305927N
PROGRAM ELEMENT TITLE: Navy Space Surveillance

(U) COST: (Dollars in thousands)

PROJECT NUMBER & TITLE	FY 2001 ACTUAL	FY 2002 ESTIMATE	FY 2003 ESTIMATE	FY 2004 ESTIMATE	FY 2005 ESTIMATE	FY 2006 ESTIMATE	FY 2007 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
X0125 Naval Space Surveillance	1,411	3,208	9,548	2,285	2,278	752	775	CONT.	CONT.
X9119 SPAWAR Covert Commun/Info Transfer	-	1,685	-	-	-	-	-		
TOTAL	1,411	4,893	9,548	2,285	2,278	752	775	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Naval Space Surveillance Fence is an integral component of the U. S. Space Command Space Surveillance Network. This system provides continuous surveillance and unalerted detection of space objects crossing the continental United States. The Fence is also the only space surveillance system that provides satellite vulnerability and space control data to the fleet. It is a multistatic continuous wave radar fence consisting of three transmitter sites, six receiver sites, and a computation/communication center. The Alternate Space Control role assigned by U.S. Commander in Chief Space (USCINCSpace) requires that the Naval Space Command Mission System maintain functional equivalence with the USCINCSpace Space Control Center and receive, process, and distribute data from 26 surveillance sites. The increase in funding FY01 and out supports this role and the research, design, and development of high-powered transmitters and other system component parts for the next generation Fence system. (X0125)

Congressional Plus-up for SPAWAR Covert Communication and Information Transfer (X9119)

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under OPERATIONAL SYSTEMS DEVELOPMENT because it encompasses engineering and manufacturing development for upgrading existing operational systems.

(U) PROGRAM CHANGE SUMMARY FOR TOTAL PE:

UNCLASSIFIED

R-1 Line Item 212

Exhibit R-2, RDT&E Budget Item Justification

Page 1 of 8

UNCLASSIFIED

Exhibit R-2, FY 2003 PB RDT&E,N Budget Item Justification

DATE: February 2002

BUDGET ACTIVITY: 7 PROGRAM ELEMENT: 0305927N
PROGRAM ELEMENT TITLE: Navy Space Surveillance

PROJECT X0125

FY 2001: Section 8086: 0.7% Pro-Rata Reduction (-\$10K), Government-Wide Rescission (-\$3K), Navy Miscellaneous Adjustments(-\$14K). FY 2002: Congressional reduction for excessive program growth (-\$1,000K), Section 8123: Management Reform Initiative (-\$29K).

PROJECT X9119

FY2002: Congressional Plus-up for SPAWAR Covert Communication and Information Transfer (+\$1,700K). Section 8123: Management Reform Initiative (-\$15K).

(U) CHANGE SUMMARY EXPLANATION:

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

UNCLASSIFIED

R-1 Line Item 212

Exhibit R-2, RDT&E Budget Item Justification

Page 2 of 8

UNCLASSIFIED

Exhibit R-2, FY 2003 PB RDT&E,N PROJECT JUSTIFICATION

DATE: February 2002

BUDGET ACTIVITY: 7

PROGRAM ELEMENT: 0305927N

PROJECT: X0125

PROGRAM ELEMENT TITLE: Naval Space Surveillance

PROJECT TITLE: Naval Space Surveillance

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 2001 ACTUAL	FY 2002 ESTIMATE	FY 2003 ESTIMATE	FY 2004 ESTIMATE	FY 2005 ESTIMATE	FY 2006 ESTIMATE	FY 2007 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
X0125 Naval Space Surveillance	1,411	3,208	9,548	2,285	2,278	752	775	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project supports the Naval Space Surveillance Fence, an integral component of the U. S. Space Command Space Surveillance Network. This system provides continuous surveillance and unalerted detection of space objects crossing the Continental United States. The fence is also the only space surveillance system which provides satellite vulnerability and space control data to the fleet. It is a multistatic continuous wave radar fence consisting of three transmitter sites, six receiver sites, and a computation/communication center. The Alternate Space Control role assigned by U.S. Commander in Chief Space (USCINCSpace), requires that the Naval Space Command Mission System maintain functional equivalence with the USCINCSpace Space Control Center and receive, process, and distribute data from 26 surveillance sites.

B. (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 2001 ACCOMPLISHMENTS:

- (U) (\$87) Studied integrated communications for remote operations.
- (U) (\$1,324) Evaluated requirements for S-band operations to draft performance specification. Performed studies to reduce technical risks of the S-Band sensor system development and numerically intensive processing.

2. (U) FY 2002 PLAN:

- (U) (\$500) Conduct Environmental, Safety, and Hazmat studies in support of frequency selection and allocation.
- (U) (\$2,708) Develop preliminary architecture and design for RF sensors, communications, and processing.

3. (U) FY 2003 PLAN:

- (U) (\$3,655) Complete development of detailed architecture and design for RF sensors, communications, and processing.
- (U) (\$5,893) Develop an RF sensor prototype to provide a system demonstration in FY2004 prior to Critical Design Review (CDR)

UNCLASSIFIED

R-1 Line Item 212

Exhibit R-2a, RDT&E,N Project Justification

Page 3 of 8

UNCLASSIFIED

Exhibit R-2, FY 2003 PB RDT&E,N PROJECT JUSTIFICATION

DATE: February 2002

BUDGET ACTIVITY: 7

PROGRAM ELEMENT: 0305927N

PROJECT: X0125

PROGRAM ELEMENT TITLE: Naval Space Surveillance

PROJECT TITLE: Naval Space Surveillance

(U) Related RDT&E: Not Applicable

C. (U) OTHER PROGRAM FUNDING SUMMARY: (Dollars in thousands)

	FY 2001 ACTUAL	FY 2002 ESTIMATE	FY 2003 ESTIMATE	FY 2004 ESTIMATE	FY 2005 ESTIMATE	FY 2006 ESTIMATE	FY 2007 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
(U) OPN line #2901	2,689	3,863	2,062	25,350	28,766	29,340	30,006	cont.	cont.
(U) O&MN PE# 0305927			1,605	1,750	1,574	1,575	2,576	cont.	cont.

D. (U) SCHEDULE PROFILE: Not applicable.

(U) SCHEDULE PROFILE: Not applicable.

FY 2001

FY 2002

FY 2003

To Complete

Program Milestones

MS B Decision

UNCLASSIFIED

R-1 Line Item 212

Exhibit R-2a, RDT&E,N Project Justification

Page 4 of 8

UNCLASSIFIED

Exhibit R-2, FY 2003 PB RDT&E,N PROJECT JUSTIFICATION

DATE: February 2002

BUDGET ACTIVITY: 7

PROGRAM ELEMENT: 0305927N

PROJECT: X0125

PROGRAM ELEMENT TITLE: Naval Space Surveillance

PROJECT TITLE: Naval Space Surveillance

Engineering
Milestones

Phase II - Sensor
Risk Reduction &
System Design

Phase III - System
Preliminary Design

Phase III - System
Detail Design

Production and
Installation

T&E Milestones

Contract Milestones

Exercise Phase II
Option

Award Phase III
Contract

Exercise Phase III
Option

Note: In FY04 there will be a formal Milestone C Decision prior to production.

UNCLASSIFIED

R-1 Line Item 212

Exhibit R-2a, RDT&E,N Project Justification

Page 5 of 8

UNCLASSIFIED

Exhibit R-3, FY 2003 PB RDT&E,N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

DATE: February 2002

BUDGET ACTIVITY: 7

PROGRAM ELEMENT: 0305927N

PROJECT: X0125

PROGRAM ELEMENT TITLE: Naval Space Surveillance

PROJECT TITLE: Naval Space Surveillance

A. (U) PROJECT COST BREAKDOWN: (\$ in thousands)

Project Cost Categories	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>
a. Project Management	0	400	800
b. Product Development	1,411	2,808	8,748
Total	1,411	3,208	9,548

UNCLASSIFIED

R-1 Line Item 212

Exhibit R-3, Project Cost Analysis

Page 6 of 8

UNCLASSIFIED

Exhibit R-2a, FY 2003 PB RDT&E,N PROJECT JUSTIFICATION

DATE: February 2002

BUDGET ACTIVITY: 7

PROGRAM ELEMENT: 0305927N

PROJECT: X9119

PROGRAM ELEMENT TITLE: Naval Space Surveillance

PROJECT TITLE: SPAWAR Covert Comm & Info
Transfer

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 2001 ACTUAL	FY 2002 ESTIMATE	FY 2003 ESTIMATE	FY 2004 ESTIMATE	FY 2005 ESTIMATE	FY 2006 ESTIMATE	FY 2007 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
X9119 SPAWAR Covert Communication and Information Transfer									
			1,685						

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:
SPAWAR Covert Communication and Information Transfer

B. (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 2001 ACCOMPLISHMENTS: N/A.

2. (U) FY 2002 PLAN:

- (U) (\$1,685) SPAWAR Covert Communication and Information Transfer.

3. (U) FY 2003 PLAN: N/A.

(U) RELATED RDT&E: Not applicable.

UNCLASSIFIED

R-1 Line Item 212

Exhibit R-2a, RDT&E,N Project Justifications

Page 7 of 8

UNCLASSIFIED

Exhibit R-3, FY 2003 PB RDT&E,N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

DATE: February 2002

BUDGET ACTIVITY: 7

PROGRAM ELEMENT: 0305927N

PROJECT: X9119

PROGRAM ELEMENT TITLE: Naval Space Surveillance

PROJECT TITLE: SPAWAR Covert Comm & Info
Transfer

A. (U) PROJECT COST BREAKDOWN: (\$ in thousands)

Project Cost Categories	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>
a. SPAWAR Covert Communication And Information Transfer	0	1,685	0
Total	0	1,685	0

UNCLASSIFIED

R-1 Line Item 212

Exhibit R-3, Project Cost Analysis

Page 8 of 8